



	W#45	ACAL I HALL	JICAN I WALLING INDICE	THE TOOCUMENT	DOCOCCUCATION C			
PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search Nucleotide	▼ for					Go Clear		
		Limits	Preview/Inde	X	History	Clipboard	De	tails
Display default	▼ Save	Text	Add to Clipboard	<del></del>				

Protein, Taxonomy, LinkOut

```
☐ 1: X78671. H.vulgare mRNA fo...[gi:563486]
LOCUS
            HVCHT2A
                                     1028 bp
                                                 mRNA
                                                         linear
                                                                   PLN 01-NOV-1994
DEFINITION
            H.vulgare mRNA for chitinase 2a.
ACCESSION
            X78671
            X78671.1 GI:563486
VERSION
KEYWORDS
            chitinase.
SOURCE
            Hordeum vulgare subsp. vulgare.
  ORGANISM
            Hordeum vulgare subsp. vulgare
            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
            Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
            Pooideae; Triticeae; Hordeum.
REFERENCE
               (bases 1 to 1028)
  AUTHORS
            Bryngelsson, T., Collinge, D.B., Green, B., Gummesson, P.O., Kragh, K.
            and Thordal-Christensen, H.
  TITLE
            Purification, characterization and cDNA sequence of a basic
            chitinase from barely infected with powdery mildew
  JOURNAL
            Unpublished
REFERENCE
               (bases 1 to 1028)
  AUTHORS
            Bryngelsson, T.L.
  TITLE
            Direct Submission
  JOURNAL
            Submitted (16-MAR-1994) T.L. Bryngelsson, Department of Plant
            Breeding Research, The Swedish University of Agricultural Sciences,
                                                                               for seq IDI
cquell: 843764
            S-268 31 Svaloev, SWEDEN
FEATURES
                     Location/Qualifiers
     source
                     1..1028
                     /organism="Hordeum vulgare subsp. vulgare"
                     /cultivar="Pallas, near-isogenic line P02"
                     /db xref="taxon:112509"
                     /tissue_type="leaf"
                     /clone_lib="plasmid"
                     /dev stage="seedling"
                     59..829
     gene
                     /qene="cht2a"
                     59..829
     CDS
                     /gene="cht2a"
                     /EC number="3.2.1.14"
                     /codon start=1
                     /product="chitinase"
                     /protein_id="CAA55344.1"
                     /db xref="GI:563487"
                     /db xref="SPTREMBL:Q43764"
                     /translation="MARPAALAVCAAALLLAVAVGGAAAOGVGSVITRSVYASMLPNR
                     DNSLCPARGFYTYDAFIAAANTFPGFGTTGSADDIKRELAAFFGQTSHETTGGTRGAA
                     DQFQWGYCFKEEISKATSPPYYGRGPIQLTGRSNYDLAGRAIGKDLVSNPDLVSTDAV
                     VSFRTAMWFWMTAQGNKPSSHNVALRRWTPTAADTAAGRVPGYGVITNIINGGLECGM
                     GRNDANVDRIGYYTRYCGMLGTATGGNLDCYTORNFAS"
     mat peptide
                     137..826
                     /gene="cht2a"
                     /product="chitinase"
                     /EC_number="3.2.1.14"
BASE COUNT
                          313 c
                                   301 q
                                            184 t
ORIGIN
        1 atagetetee tigegetata etacattica egageegaet agetgaaggt gagttageat
       61 ggcgaggcct gctgccctcg cggtgtgcgc cgccgcgctc ctgctcgccg tggcggtggg
```

NCBI Sequente Viewerttcagg a	cggcgatgt ggttctggat	gacggcgtttpg/vgggcadocalangth.gogt80/gatgcedaide&list_uids=563486&dopt=GenBanl
601 caacgtcgcc c	tacgccgct acgccgac	c ggccgccgac accgctgccg cgggttcc
• 661 aggctacggt g	taatcacca catcatcaa	a cggcgggctc gagtgcggca egggccggaa
721 cgacgccaac g	stegategea teggetaeta	a cacgcgctac tgcggcatgc tcggcacggc
		a acggaacttc gctagctaga agtatccacg
841 tctgacgccc a	tcacagtgt atgcacgtgt	tacgaataaa tggcaatacc gtacatatgc
		ctagttgatg gtgtcgtgtg gtaatacgag
961 agtcgtcgta a	cagattatg taaagtgttc	c aataaaatca tgctgtatca aaaaaaaaaa
1021 aaaaaaaa		·
//		

Revised: October 24, 2001.

Disclaimer | Write to the Help Desk NCBI | NLM | NIH



BASE COUNT

ORIGIN

467 a



	u fictur	ACAL MACGE	DECALL STATE INTE	LANT ICOCONCAC	SOCOGEOGY   COCE OF			
PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search Nucleotide	▼ for			-		Go Clear		۰
		Limits	Preview/Inde	ex	History	Clipboard	Det	ails
Display default	Save	Text A	Add to Clipboard					

Protein, Taxonomy, LinkOut

```
☐1: X76041. T.aestivum (Chine...[gi:416028]
LOCUS
                                     1985 bp
                                                 DNA
                                                         linear
                                                                   PLN 02-AUG-1996
            TACHIG
DEFINITION
            T.aestivum (Chinese spring) chi gene for endochitinase.
ACCESSION
            X76041
            X76041.1 GI:416028
VERSION
            CHI gene; endochitinase.
KEYWORDS
SOURCE
            bread wheat.
  ORGANISM
            Triticum aestivum
            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
            Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
            Pooideae; Triticeae; Triticum.
               (bases 1 to 1985)
REFERENCE
 AUTHORS
            Liao, Y.
            Direct Submission
  TITLE
  JOURNAL
            Submitted (09-NOV-1993) Y. Liao, Inst. fuer Biologie I, RWTH,
            Worringer Weg, 52056 Aachen, FRG
REFERENCE
               (bases 1 to 1985)
 AUTHORS
            Liao, Y.C., Kreuzaler, F., Fischer, R., Reisener, H.J. and Tiburzy, R.
  TITLE
            Characterizaiotn of a wheat class Ib chitinase gene differentially
                                                                             for Seq 10 NO. 23
            induced in isogenic lines by infection with Puccinia graminis
  JOURNAL
            Plant Sci. 103, 177-187 (1994)
FEATURES
                     Location/Qualifiers
                     1..1985
     source
                      organism="Triticum aestivum"
                      /cultivar="Chinese spring"
                      /db xref="taxon:4565"
                      /clone_lib="lambda gem-12 genomic"
                     71..1595
     gene
                      /gene="CHI"
     GC_signal
                     71..75
                      /gene="CHI"
     GC_signal
                     250..254
                      /gene="CHI"
     CAAT_signal
                     390..394
                     /gene="CHI"
     TATA_signal
                     529..536
                      /gene="CHI"
     mRNA
                     600..>1595
                      /gene="CHI"
     CDS
                     633..1595
                      /gene="CHI"
                      /codon start=1
                     /product="endochitinase"
                     /protein_id="CAA53626.1"
                      /db xref="GI:416029"
                      /db_xref="SPTREMBL:Q41539"
                      translation="MRGVVVVAMLAAAFAVSAHAEQCGSQAGGATCPNCLCCSKFGFC/
                     GSTSDYCGNGCQSQCNGCSGGGTPVPVPTPTGGGVSSIISQSLFDQMLLHRNDAACQA
                     KGFYNYGAFVAAANSFSGFATTGGADVRKREVAAFLAQTSHETTGGWPTAPDGPYSWG
                     YCFNQERGAASDYCSPNSQWPCAPGKKYFGRGPIQISYNYNYGPAGRAIGTDLLNNPD
                     LVATDATVSFKTALWFWMTPQSPKPSSHDVITGRWSPSGADQAAGRVPGYGVITNIIN
                     GGLECGRGQDGRVADRIGFYKRYCDLLGVTYGDNLDCYNQRPFA"
     sig peptide
                     633..692
                      /gene="CHI"
     mat_peptide
                     693..1592
                      /gene="CHI"
```

1 gagetetagt gtaatttteg ttgtaatgaa gaetgtteat atgtateaaa catagtttge 1 of 2 61 ctggtcggca gggcgtctct aacagaaaaa aaacaagtag aaagagaatg gaattccatg

412 t

552 g

/product="endochitinase"

554 c

NCBI Sequence	te Voiantog caageg	acatcaccaa	gaaaattcca	cgtccgtbtpa//	www.extbtelentnijh	.gogg60/gratecentide&list	_uids=416028&dopt=GenBank
181شم	tgtttggtcg	cacatcaaag	agctggt	gcatgcatgc	atgcttgctt	ttgcatgc	
, 241	gcgcaggaag	cgggagaaaa	Ctgacttg	agagggtttt	tccacgctta	cccagccc	
301	gatcaacgtc	cggtgcaccg	gcatgtgcac	cagcaccggc	attccatgct	tccattagtg	
363	atcactgact	cctctgtagt	tagcttacac	gaatcggaac	atgcgtacaa	agtacacgta	
423	ctgcatcgct	ctcgagatct	gccgaacttg	cttgtactac	gtagctagac	taagtagagc	
	gatcatggcc						
543	L tgcactgcaa	cagcttctgg	cacacacaca	ccactgcacg	agtagtgtga	cacacaatca	
	ccagctgagc						
663	Ltggccgcggc	cttcgccgtg	tctgcgcacg	ccgagcagtg	cggctcgcag	gccggcgggg	
	cgacgtgccc						
783	actgcggcaa	cggctgccag	agccagtgca	acggctgcag	cggcggcggc	accccggtac	
841	cggtaccgac	ccccaccggc	ggcggcgtgt	cctccattat	ctcgcagtcg	ctcttcgacc	
903	agatgctgct	gcaccgcaac	gatgcggcgt	gccaggccaa	ggggttctac	aactacggcg	
963	cctttgtagc	cgccgccaac	tcgttctcgg	gcttcgcgac	cacgggtggc	gccgacgtca	
1023	L ggaagcgcga	ggtggccgcg	ttcctcgctc	agacctccca	cgagaccacc	ggcgggtggc	
1083	caacggcgcc	cgacggcccc	tactcgtggg	gctactgctt	caaccaggag	cgcggcgccg	
114:	l cctccgacta	ctgctcgccg	aactcacagt	ggccgtgcgc	gccgggcaag	aagtacttcg	
120	L ggcgcgggcc	catccagatc	tcatacaact	acaactacgg	gccggctggg	cgggccatcg	
126	ggaccgacct	gctcaacaac	ccggacctcg	tggcgacgga	tgcgaccgtg	tcgtttaaga	
1323	L cggcgctgtg	gttctggatg	acgccgcagt	cacctaaacc	ttcgagccac	gacgtgatta	
1383	cgggccggtg	gagcccctcg	ggcgccgacc	aggcggcggg	gagggtgcct	gggtacggtg	
1443	l tgatcactaa	catcatcaac	ggtgggctcg	agtgcgggcg	cgggcaggac	ggccgtgttg	
1503	l ccgaccggat	cgggttctac	aagcgctact	gcgacctact	cggcgtcacg	tacggcgaca	
1563	l acctggactg	ctacaaccag	aggccgttcg	catagtcaat	cggctatatg	atgcgagaag	
1623	l acatgcaata	aagactctct	aaatactgta	acaatggcgt	ttcgatagag	ctggcctagt	
1683	l acaagcgaat	aatggtgcga	tccacgcaag	gtgcgtgtgt	agtcgattat	aatgcaataa	
174	l atggtgtgtt	cctatccaag	tttttttaa	atgaaatgca	tttagcccga	ctttaaatta	
180	l atgaaaccac	caaccgggta	ggatacaaaa	tgcagattga	tacaacgggt	gcgcatgaga	
	l aaaaaaaaga						
	l tgaaatattt	tgctagagtt	atataaatat	aatgcatgct	aaattgatat	attaaaaaaa	
	l gataa						
//							

Revised: October 24, 2001.

Disclaimer | Write to the Help Desk NCBI | NLM | NIH